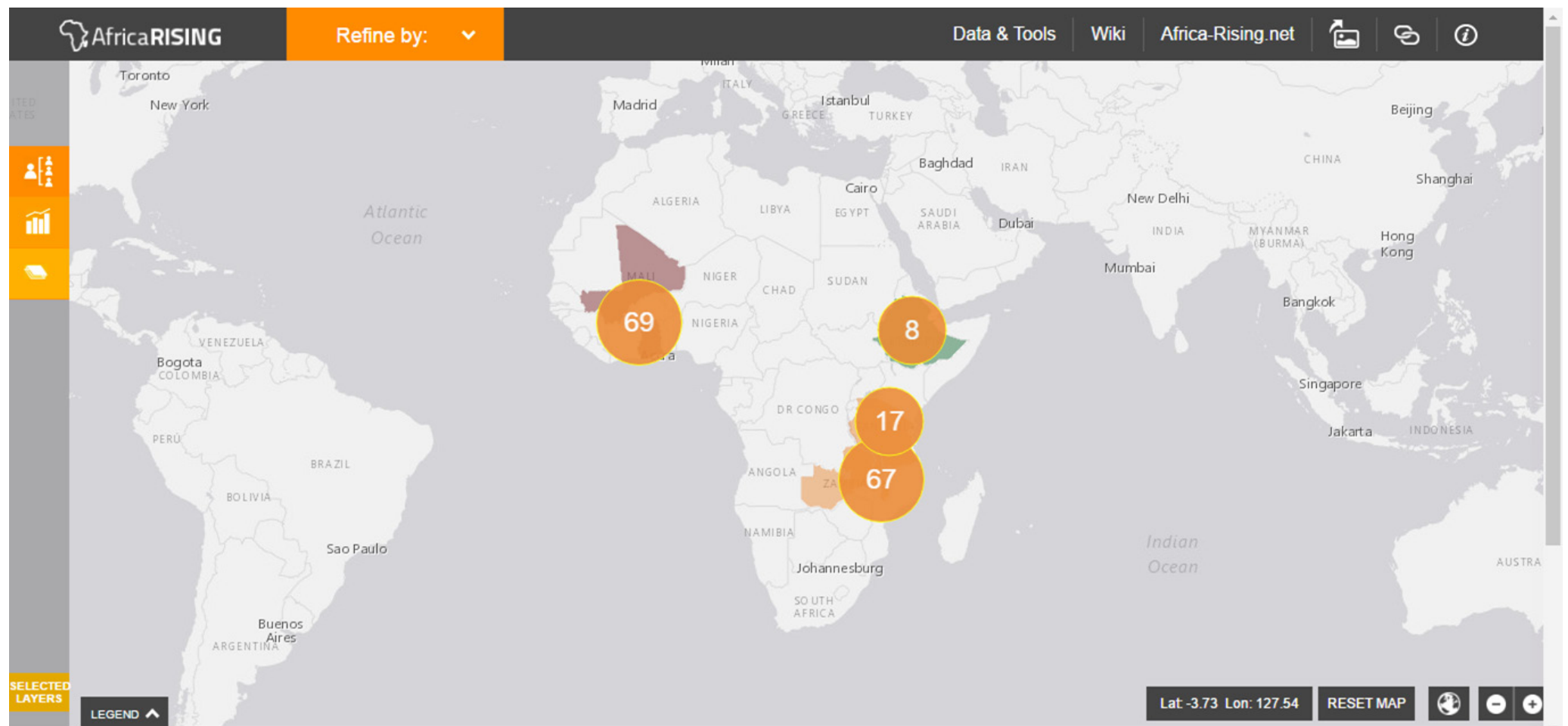


# Web-based project monitoring and data management

*What did we learn from Africa RISING phase 1?*



*Africa RISING Project Mapping and Monitoring Tool (PMMT) mapping page*

## Key messages

- Web-based tools can and should be an integral part of project monitoring in the 21<sup>st</sup> century.
- Proper data documentation and improved data sharing are essential to enhance the efficiency and impact of research as well as reduce data redundancy and unnecessary burdens on the respondents.
- It is crucial for Africa RISING researchers to adhere to the program data management plan.

## The issue

Monitoring and evaluation (M&E) is vital for tracking and measuring results, timely reporting, and keeping project managers and stakeholders up-to-date about successes and failures. For a big program like Africa RISING that focuses on a wide variety of (localized) agricultural innovations and brings together a large number of local and international research centers, M&E may need to go beyond traditional paper-and-pencil approach. With project complexity also comes the need for an M&E system that allows regional projects and

country teams to track both global and localized socio-economic and environmental indicators that can later be aggregated in meaningful ways to assess program-level outcomes and progress.

At the same time, an effective M&E system will need to go beyond tracking household-level indicators and allow researchers to intersect household-level outcomes with various landscape-level, biophysical, and economic factors that could affect decisions and outcomes at the household level.

“*So much data will be collected. What is next? How do we analyze it all? How do we relate the parameters to each other? And how do we interpret the data after collection?*”

*Africa RISING researchers in Ghana*

Over the last four years, Africa RISING has generated a huge amount of data through agronomic trials, household surveys, and focus group discussions, to mention a few. With so much

information, it is crucial that data are properly stored and made accessible to researchers and non-researchers alike.

IFPRI, in collaboration with Spatial Development International, has developed a web-based Project Mapping and Monitoring Tool (PMMT) to complement off-line monitoring activities. Working with ILRI, IFPRI has also enabled researchers to upload data to the ILRI-managed data repository (CKAN) where authorized users can access data collected by Africa RISING researchers.

## Findings

- Based on feedback received from researchers, the PMMT has been found to be an important monitoring tool.
- The tool has allowed quicker aggregation and verification of data on the Feed the Future (FtF) indicators before uploading to the USAID's FtF Monitoring System (FtFMS).
- Researchers have started sharing data (uploading and downloading) using ILRI's data repository platform (CKAN).

## Recommendations

- More and more researchers should use the consistency embedded PMMT for timely reporting of data on the FtF indicators
- Researchers should also use the data reporting functionality of the PMMT to create customized indicators to monitor their activities.
- Africa RISING researchers should adhere to the program data management and sharing protocols to maximize benefits and encourage evidence-based, cross-project learning.

## Methodology

PMMT exploits recent advances in Geographic Information Systems (GIS) and hundreds of existing layers of spatially explicit, biophysical data for sub-Saharan Africa, compiled by HarvestChoice.

The tool allows researchers to map project locations and overlay a mixture of available spatial agro-economic data. A [user guide](#) and [video tutorial](#) have been produced for PMMT users. The PMMT has two main applications:

- 1. Mapping:** Allows users to contextualize where Africa RISING activities are taking place and view the associated information (see main photo).
- 2. Data report:** Allows authorized users to create data reports on various indicators (FtF as well as customized) using an intuitive, step-by-step interface.

Version 1 of the tool was released in 2013 and discussed with researchers during the 2013 annual M&E meeting in Addis Ababa, Ethiopia. The tool was then updated based on feedback received from researchers and IFPRI organized five in-country PMMT trainings in 2014 for 51 researchers.

A second round of updates preceded the PMMT trainings in the summer of 2015, attended by 52 researchers. Updates made to the tool include separation of the mapping and data report applications to improve speed and allow researchers to upload monitoring data without the need for high-speed internet connectivity.

As part of its data management effort, IFPRI has worked with ILRI to enable researchers to upload all types of data generated by various teams onto CKAN. IFPRI has also produced an accompanying data management plan (accessible from this link: <https://cgspace.cgiar.org/handle/10568/71039>) to provide guidance on data management practices and standards for Africa RISING researchers.



The Africa Research In Sustainable Intensification for the Next Generation (Africa RISING) program comprises three research-for-development projects supported by the United States Agency for International Development as part of the U.S. government's Feed the Future initiative.

Through action research and development partnerships, Africa RISING will create opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base.

The three projects are led by the International Institute of Tropical Agriculture (in West Africa and East and Southern Africa) and the International Livestock Research Institute (in the Ethiopian Highlands). The International Food Policy Research Institute leads an associated project on monitoring, evaluation and impact assessment.

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